

Introductory Comments

Claims 1-4, 9-14, 16, 18-20, and 24-37 are pending in the Application. Claims 1-4, 9-14, 16, 18-20, and 24-34 were rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Kawabe et al. in view of Yong and Ikehara et al..

Please amend claim 33.

No claims have been allowed by the Examiner

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

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1. (previously amended) A pointing device capable of changing the appearance of a display, comprising:
 - a housing having a cover and a base;
 - a single spool cable receiver rotatably mounted to the housing;
 - a cable having a first end and a second end with the second end mounted to the cable receiver; and
 - a tracking device having at least one component of the tracking device disposed on or within the cable receiver, wherein the tracking device generates signals based on movement of the pointing device, wherein the pointing device has a first mode with a first portion of the cable having a first length external to the pointing device and a second portion of the cable wound around the cable receiver; and a second mode with the first portion of the cable having a second length external to the pointing device less than the first length.
 2. (original) The pointing device of claim 1, wherein the pointing device has a third mode with a third portion of the cable having a third length external to the pointing device less than the first length and greater than the second length.
 3. (previously amended) The pointing device of claim 1, further comprising a switch to generate a pointing signal to the display.

4. (previously amended) The pointing device of claim 3, wherein the switch further comprises a link having a conductor portion capacitively coupled to the cable receiver.

5. - 8. (canceled)

9. (previously amended) The pointing device of claim 1, wherein the tracking device further comprises an optical tracking device including a sensor, a lens, and a light source, wherein the optical tracking device optically tracks movement of the pointing device.

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10. (previously amended) The pointing device of claim 1, further comprising:
a reference stop surface disposed in the housing; and
a detent disposed in the housing, the detent having a mating surface to the reference stop surface, wherein when the detent mates with the reference stop surface, providing tactile feedback, the tracking device is in proper alignment with the housing, and when the detent does not mate with the reference stop surface the tracking device is not in proper alignment with the housing.

11. (original) The pointing device of claim 1, wherein the cable is shielded.

12. (previously amended) The pointing device of claim 1, wherein the cover further comprises a lid having an open position providing access to the cable receiver and the lid having a closed position covering the cable receiver.

13. (previously amended) The pointing device of claim 12, further comprising:

a rotatable disk affixed to the cable receiver, the rotatable disk having a disk top including an exterior surface, further comprising:

a depression formed in the exterior surface of the disk top, the depression having a diameter, and adapted to accept a finger, and an aperture within the depression less than the diameter of the depression.

14. (previously amended) The pointing device of claim 1, further comprising:

a connector attached to the cable at the first end; and

a connector receiver formed in the housing which accepts the connector.

15. (canceled)

16. (previously amended) The pointing device of claim 1, wherein the tracking device further comprises:

a mechanical motion transfer mechanism disposed in the housing; and

a rotatable control circuit having at least one transducer disposed on or within the cable receiver, and converting movement of the mechanical motion transfer mechanism into position signals in response to movement of the housing.

17. (canceled)

18. (previously amended) The pointing device of claim 16, wherein the rotatable control circuit further comprises first and second transducers converting movement of the mechanical motion transfer mechanism into first and second position signals in response thereto.

19. (previously amended) The pointing device of claim 18, wherein the mechanical motion transfer mechanism further comprises:

a first wheel with a polygonal edge surface rotatably mounted relative to the housing; and

a second wheel rotatably mounted relative to the housing, wherein the first transducer is operably coupled to the first wheel producing the first position signal and the second transducer is operably coupled to the second wheel producing the second position signal in response to rotation of the first and second wheels in response to movement of the housing.

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20. (original) The pointing device of claim 1, further comprising:
a rotatable disk mounted to the cable receiver; and
a slot in the housing, wherein the rotatable disk protrudes through the slot.

21. - 23. (canceled)

24. (previously amended) A system, comprising:
a computer;
a display electrically coupled to the computer; and
a pointing device, wherein the pointing device is capable of changing the appearance of the display, the pointing device further comprising:
a housing having a cover and a base,
a single spool cable receiver rotatably mounted to the housing,
a cable having a first end and a second end with the second end mounted to the cable receiver, and
a tracking device having at least one component of the tracking device disposed on or within the cable receiver, wherein the tracking device generates signals based on movement of the pointing device, the signals controlling movement of a reference on the display;

wherein the pointing device has a first mode with a first portion of the cable having a first length external to the pointing device and a second portion of the cable wound around the cable receiver; and a second mode with the first portion of the cable having a second length external to the pointing device less than the first length.

25. (previously amended) A system, comprising:

a computer;

a display coupled to the computer; and

a pointing device, wherein the pointing device is capable of changing the appearance of the display, the pointing device further comprising:

a housing having a cover and a base,

a cable receiver rotatably mounted to the housing,

a cable having a first end and a second end with the second end mounted to the cable receiver, and

an optical tracking device having at least one optical component disposed within the cable receiver, the optical tracking device including a sensor, a lens, and a light source, wherein the tracking device generates signals based on movement of the pointing device, the signals controlling movement of a reference on the display;

wherein the pointing device has a first mode with a first portion of the cable having a first length external to the pointing device and a second portion of the cable wrapped around the cable receiver; and a second mode with the first portion of the cable having a second length external to the pointing device less than the first length.

26. (previously amended) A system, comprising:

a computer;

a display coupled to the computer; and

a pointing device, wherein the pointing device is capable of changing the appearance of the display, the pointing device further comprising:

a housing having a cover and a base,
a cable receiver rotatably coupled to the housing,
a cable having a first end and a second end with the second end
mounted to the cable receiver; and
an optomechanical tracking device disposed in the housing,
further comprising:

a mechanical motion transfer mechanism, and
a rotatable control circuit having at least one transducer
disposed on the cable receiver converting movement of the
mechanical motion transfer mechanism into position signals in
response to movement of the housing;

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wherein the pointing device has a first mode with a first portion of the
cable having a first length external to the pointing device and a second portion
of the cable wrapped around the cable receiver; and a second mode with the
first portion of the cable having a second length external to the pointing device
less than the first length.

27. (previously amended) A method for storing a cable with a
connector in a pointing device housing containing a cable receiver with a
connector receiver and the connector coupled to a computer, comprising the
steps of:

disconnecting the cable from a computer;
opening a lid disposed on the housing of the pointing device;
providing access to a rotatable disk attached to the cable receiver;
rotating the rotatable disk to wind the cable around the cable receiver;
inserting the connector into the connector receiver; and
closing the lid.

28. (original) The method of claim 27, wherein the winding step further
comprises the step of inserting a stylus into an aperture and rotating the
rotatable disk to wind the cable around the cable receiver.

29. (previously added) The pointing device of claim 10, wherein said detent further comprises an electrical switch.

30. (previously added) The pointing device of claim 19, wherein the polygonal edge surface further comprises n flat reflective surfaces, wherein n is greater than 20.

31. (previously added) The pointing device of claim 19, wherein the second wheel further comprises an encoder wheel having alternating reflective and non-reflective surfaces on a face surface of the encoder wheel.

32. (previously added) the pointing device of claim 19, wherein the first wheel operably couples to the first transducer utilizing reflected light and the second wheel operably couples to the second transducer utilizing reflected light.

33. (currently amended) A pointing device capable of changing the appearance of a display comprising:

- a housing having a cover and a base;
- a single spool cable receiver rotatably mounted to the housing;
- a cable having a first end and a second end with the second end mounted to the cable receiver;
- a switch capacitively coupled to the cable receiver wherein the switch generates a pointing signal to the display;
- a detent wherein the detent aligns the cable receiver to the housing;
- a connector attached to the cable at the first end;
- a connector receiver formed in the housing which accepts the connector;
- a lid, wherein the lid is disposed in an open position when the cable is being wound around the cable receiver, and the lid is disposed in a closed position when covering the cable receiver;

a rotatable disk affixed to the cable receiver, the rotatable disk having a disk top including an exterior surface further comprising:

a depression formed in the exterior surface of the disk top, the depression having a diameter, and

an aperture within the depression less than the diameter of the depression; and

a tracking device mounted to the cable receiver, the tracking device having an optical sensor for generating signals based on movement of the pointing device, the signals controlling the movement of a reference on the display, wherein the pointing device has a first mode with a first portion of the cable having a first length external to the pointing device and a second portion of the cable wound around the cable receiver; and a second mode with the first portion of the cable having a second length external to the pointing device less than the first length.

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34. (previously added) A pointing device capable of changing the appearance of a display comprising:

a housing having a cover having an opening and a base;

a single spool cable receiver rotatably mounted to the housing;

a cable having a first end and a second end with the second end mounted to the cable receiver;

a switch capacitively coupled to the cable receiver wherein the switch generates a pointing signal to the display;

a detent wherein the detent aligns the cable receiver to the housing;

a connector attached to the cable at the first end;

a connector receiver formed in the housing which accepts the connector;

a rotatable disk affixed to the cable receiver, and disposed within the opening in the cover;

a tracking device mounted to the cable receiver, comprising:

a rotatable control circuit mounted to the cable receiver for producing position signals in response to movement of the housing, the

rotatable control circuit having first and second transducers for receiving user commands indicating movement of the housing and producing first and second position signals in response thereto;

a tracking mechanism disposed in the housing coupled to the rotatable control circuit for generating signals in response to movement of the housing, further comprising:

a first wheel having a polygonal edge surface, the first wheel rotatably mounted to the housing, and

a second wheel rotatably mounted relative to the housing, wherein the first transducer is operably coupled to the first wheel producing a first signal and the second transducer is operably coupled to the second wheel producing a second signal in response to rotation of the first and second wheels in response to movement of the housing;

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cmf wherein the pointing device has a first mode with a first portion of the cable having a first length external to the pointing device and a second portion of the cable wound around the cable receiver; and a second mode with the first portion of the cable having a second length external to the pointing device less than the first length.

35. (previously added) The pointing device of claim 1, further comprising:

a reference stop surface fixedly coupled to the housing; and

a detent disposed on the cable receiver, the detent having a mating surface to the reference stop surface, wherein when the detent mates with the reference stop surface, providing tactile feedback, the tracking device is in proper alignment with the at least one electrical component of the tracking device disposed on or within the cable receiver, and when the detent does not mate with the reference stop surface the tracking device is not in proper alignment with cable receiver.

36. (previously added) A pointing device, comprising:

a housing;

a cable receiver rotatably mounted to the housing;

a cable having a first end and a second end with the second end mounted to the cable receiver; and

a tracking device having all electrical components of the tracking device disposed on or within the cable receiver, wherein the tracking device generates signals based on movement of the housing, wherein the cable is alternately manually wound or unwound from the cable receiver between a first length and a second length external to the housing.

37. (previously added) A pointing device, comprising:

a housing;

a cable receiver rotatably mounted to the housing;

a cable having a first end and a second end with the second end mounted to the cable receiver; and

an optical tracking device having only optical components, the tracking device disposed on or within the cable receiver, wherein the tracking device generates signals based on movement of the housing, wherein the cable is alternately manually wound or unwound from the cable receiver between a first length and a second length external to the housing.